

JPRS 77601

17 March 1981

China Report

AGRICULTURE

No. 127



FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available from Bell & Howell, Old Mansfield Road, Wooster, Ohio 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

17 March 1981

CHINA REPORT

AGRICULTURE

No. 127

CONTENTS

I. GENERAL INFORMATION

National

Minister Tells of Plans for Agricultural Mechanization (Xiang Nan Interview; CHING-CHI TAO-PAO, 5 Nov 80).....	1
Proposals for Modernization of Agriculture in Northwest (Chen Yichao, Gu Yonggao; GUANGMING RIBAO, 11 Jan 81).....	7
Degeneration of Superior Varieties Discussed (Zun Shi; NONGCUN KEXUE SHIYAN, 10 Sep 80).....	9
Chicken Raising by Specialized Households Urged (RENMIN RIBAO, 3 Jan 81).....	13
Profits from Chicken Raising by Households Household Chicken Raising Advocated	

Briefs

Agricultural Cadres Training	16
------------------------------	----

ANHUI

Responsible Persons Disciplined for Serious Grain Mildew (RENMIN RIBAO, 3 Jan 81).....	17
-------------------------------------------------------------------------------------------	----

Briefs

Anhui Prefecture Afforestation	18
--------------------------------	----

BEIJING

Briefs

Beijing Drought Resistance	19
----------------------------	----

FUJIAN

Negotiated Price for Edible Oils Reduced (GUANGMING RIBAO, 19 Dec 80).....	20
Fruit Production Record Set (Lin Mo; FUJIAN RIBAO, 25 Dec 80).....	22
Commune, Brigade-Run Enterprises Rapidly Growing (Yang Zheng; FUJIAN RIBAO, 11 Oct 80).....	24
Timber Felling Quotas Fulfilled Ahead of Schedule (Yang Tao; FUJIAN RIBAO, 22 Dec 80).....	25

GANSU

Briefs	
Gansu Agriculture, Livestock	26
Shandan County Agriculture	26
Prefecture Grain Production	26

GUANGDONG

Enterprises Run by Communes, Brigades Continue To Develop (Tan Guangdou, Huang Rong; NANFANG RIBAO, 3 Jan 81).....	27
Briefs	
Building Materials Growth	29
Silkworm Cocoon Output	29
Citrus Output	30
Tea Production	30
Rice Production	30
PLA Spring Farming	31

GUIZHOU

Briefs	
Commune, Brigade Enterprises	32

HEILONGJIANG

Unprecedented Bumper Harvest of Economic Crops Reaped (Yang Yintang, Yang Peichun; HEILONGJIANG RIBAO, 6 Jan 81).....	33
State Farm System Emphasizes Training Personnel (Zhang Zhaochen, Yuan Fengming; HEILONGJIANG RIBAO, 8 Jan 81)..	35
Briefs	
Reforestation Survey	37
Grain Output	37

HENAN

Briefs

Afforestation Circular

38

JIANGSU

New Hybrid Rice Strain Proves Big Success

(GUANGMING RIBAO, 9 Jan 81).....

39

Double-Cropping Can Yield More Than Triple-Cropping

(GUANGMING RIBAO, 9 Jan 81).....

40

Briefs

Cocoon Production

42

Afforestation Increase

42

Afforestation Work

42

Afforestation Conference

42

County Hog-Raising

42

LIAONING

Briefs

Municipality's Drought

43

SHANGHAI

Briefs

Cold Spell

44

SHANXI

Briefs

Tong Oil

45

SICHUAN

Briefs

Lezhi County Agriculture

46

XINJIANG

Briefs

Afforestation Circular

47

Spring Farming

47

Production Readjustment

47

Forest Protection Circular

47

Tractor Utilization

47

XINZANG

Briefs	
Spring Production	48

YUNNAN

Briefs	
Spring Farming	49

ZHEJIANG

Briefs	
Rice Cultivation	50

ABSTRACTS

PLANT PHYSIOLOGY

ZHIWU SHENGLIXUE TONGXUN [PLANT PHYSIOLOGY COMMUNICATIONS], No 6, Dec 80.....	51
----------------------------------------------------------------------------------	----

PLANT PROTECTION

ZHIWU BAOHU [PLANT PROTECTION], No 6, Dec 80.....	56
---------------------------------------------------	----

I. GENERAL INFORMATION

MINISTER TELLS OF PLANS FOR AGRICULTURAL MECHANIZATION

Hong Kong CHING-CHI TAO-PAO in Chinese No 44, 5 Nov 80 pp 4-7

[Interview with Xiang Nan, Deputy Minister of Agricultural Machinery: "Present Situation and Future Outlook of China's Agricultural Mechanization"]

[Excerpt] Present Situation of China's Agricultural Mechanization

Deputy Minister Xiang Nan reviewed the paths taken and the achievements made in our nation's agricultural mechanization. He said, "In the course of equipping agriculture, our nation's agricultural machinery industry began with the projects that were most needed in agricultural production and those that produced the most visible increases in yields and harvests."

Our nation has limited farmland and many disasters. Paddy rice production constitutes almost half of the total food grain production of the nation. After many years of practice, the farmers have come to believe that "whether there is a harvest or not depends upon whether there is water, and harvesting more or harvesting less depends upon fertilization." For many years our nation has put solving the problem of water in first place in agricultural mechanization, relying upon it to prevent and resist damage by drought and waterlogging to produce stable and high yields. Then efforts were made to popularize processing machinery for food grains, cotton and oil-bearing crops, field operations machinery, plant protection machinery, and transportation machinery. This is vastly different from other nations which take mechanized planting as the priority. This characteristic can be seen in the amount of agricultural projects equipped with agricultural machinery industry.

At present, the nation has a total of over 180 million horsepower in agricultural machinery. Of this amount:

1. Drainage and irrigation machinery totals over 5 million units with over 71 million horsepower. Mechanical and electrical irrigation covers 24.6 million hectares, constituting 56 percent of the area of effective irrigation.
2. Processing machinery for food grains, cotton, edible oil, and feed adds up to 3.4 million units with over 30 million horsepower, averaging 7.3 units for each production brigade. Except for some deep mountain regions, the processing of rice, flour, and feed has basically been mechanized in most farm villages, thus liberating a massive amount of the female labor force.

3. Field operation machinery, including threshing machines and spreaders, totals over 2 million units with about 10 million horsepower.

4. Plant protection machinery includes 230,000 motorized atomizers and power sprayers and over 20 million pieces of manually operated machinery. A majority of the production teams basically use these semimechanized tools to prevent damage by insect pests and disease and to reduce loss.

5. Transportation machinery has for many years placed equal emphasis on mechanization and semimechanization, including 460,000 trailers pulled by tractors, 1.29 million trailers pulled by hand tractors, 2.47 million carts on rubber tires pulled by draft animals, and 28 million hand-pushed carts on rubber tires. These items of machinery constitute an important force in agricultural transportation. But the number of motor vehicles is small—fewer than 100,000 units, and mainly on state-run farms.

6. Farmland operation machinery at present includes 670,000 large and medium-size tractors, 1.67 million hand tractors, 1.3 million large and medium-size farm implements pulled by machinery (including over 180,000 units of seeding machinery), over 90,000 motorized transplanters, and over 430,000 pieces of manual transplanting machinery. In all, this comes to 48 million horsepower. There are over 20,000 combines and over 70,000 harvesting and drying machines. The nation's total area of mechanized planting is 42 million hectares, or 42 percent of the total cultivated land area. Machine sowing covers 15.3 million hectares, constituting 13 percent of the area of sowing of dryland crops.

In addition, there are lesser numbers of machines for forestry, animal husbandry, and fishery.

Deputy Minister Xiang said that recently, our government decided to mechanize commercial grain bases in the northeast in order to develop the superior situation there of an abundance of cultivated land, large expanses of land, and suitability for using large-size agricultural machinery, so that the yields of food grains, soybeans, and beets can increase by a greater extent within a short period.

The northeast is our nation's important industrial base. It is also a place with the greatest potential for agricultural production. There are a total of 16.47 million hectares of cultivated land. The agricultural population is 57 million. There are also several million hectares of land that can be reclaimed. The population, area of cultivated land, and total yield of food grains in this region are all similar to those of France. Building a modern socialist agriculture here and establishing a commercial food grain base will contribute greatly to our nation's four modernizations.

Deputy Minister Xiang said that in places where there is a lot of land and few people, grasping this key of mechanization can realize a very high rate of commercial products. In places where land is scarce and people are plentiful, such as our nation's Jiangsu and Zhejiang provinces, although cultivated land is relatively scarce, the land is basically all in triple-cropped fields and the multiple planting index is above 230. The farmers need mechanization to seize the farming seasons, resist disasters, and stimulate high yields. Mechanization is

needed for developing commune and brigade industries. Reduction of labor intensity also requires mechanization. The development of mechanization is determined not by geographical position but by the need to build up production and by economic conditions and economic results.

Our nation has already built some state-run farms in various localities. These farms have a relatively high rate of mechanization, of commercial products, and of productive labor, and they have contributed relatively greatly to the state. They have become our nation's important productive bases of food grains and economic crops. For example, the state-run farm in the reclaimed region of Heilongjiang Province produced 2.75 million tons of food grains in 1979 and handed 1.35 million tons over to the state. Each agricultural worker produced 8.5 tons of food grains and soybeans. These farms need machinery and equipment that are powerful, have a complete line of products, and are highly efficient.

Agricultural Mechanization

When this reporter asked where the capital for our nation's agricultural mechanization will come from and where will the labor force thus conserved go. Deputy Minister Xiang Nan responded: These are the two most outstanding questions in the course of our nation's agricultural mechanization. To solve these problems requires state support on the one hand; the government must establish correct laws, policies, and guidelines. On the other hand, because the state's finances are limited, the collective strength of the people and masses is needed and should be mainly relied on. They can be solved by developing diversification and developing commune and brigade enterprises.

He gave two examples to explain this matter.

In Gaixian, in Liaoning Province, the average per capita area of cultivated land is less than 0.1 hectare. In the past, emphasis was always placed on the abundance of people and the small amount of land, and "human sea warfare" was thus utilized to carry out the work of food grain production. Large amounts of natural resources could not be developed. Although production of food grains increased, the situation of poverty could not be changed. Later, the degree of mechanization was improved continuously, and gradually 70 percent of the labor force was freed to develop diversification. A comparison of 1978 and 1975 showed a 1.4-fold increase in food grain production, and the annual production value of the labor force engaging in industrial and sideline production reached 1,294 yuan, realizing bumper harvests in both money and food grains.

Especially outstanding were the production brigades at 37 localities engaged in agricultural mechanization experiments in our nation's northernmost Heilongjiang Province. Last year, efforts were concentrated on using agricultural machinery, and the total yield of food grains increased by 14 percent over the previous year and industry and sideline occupations increased 37.5 percent.

Deputy Minister Xiang said: "Agricultural mechanization and diversification are truly a pair of brothers. Without engaging in agricultural mechanization, the labor force cannot be freed to engage in diversification and commune and brigade industries. The farm village cannot easily become rich. Without engaging in diversification and commune and brigade industries, there will be no sources of capital for agricultural mechanization, and there will be no outlets for the conserved labor force."

He said that, viewing the paths taken in our nation's agricultural mechanization, one sees that following mechanization, as long as the labor force is conscientiously arranged and more avenues are opened up, there will be outlets for the labor force. Our nation cannot follow the path taken by some industrialized nations, which allow massive numbers of the farm village population to rush into the cities. Our nation cannot allow the already crowded cities to swell even more. Our nation implemented a policy of developing commune and brigade enterprises and diversification, and it arranged the labor force by locality, thus causing the farm villages and small towns to continuously develop. This can create more wealth for socialism so that this part of the farm population can quickly become rich, and it can also establish the material foundation for lessening the differences between industry and agriculture and between cities and villages.

The Direction of Development of China's Agricultural Machinery Industry

Deputy Minister Xiang Nan also described the key points concerning the question of how our nation's agricultural machinery industry will develop in the future. He discussed the different aspects of the technological reform of agricultural machinery industry, the introduction of technology, improved quality, energy conservation, the development of science, service orientation, the strengthening of the management of agricultural machinery, and the development rate.

Technological reform: China's agricultural machinery industry began to be established in the 1950's. After 30 years of effort, it now has over 1,900 manufacturing plants, 2,400 repair plants at first-level counties, and over 320,000 units of metal-cutting machine tools and casting, forging and punching equipment. Manufacturing and repair capabilities can already basically satisfy the domestic needs of agricultural mechanization. China is vast. There is a need for most provinces to establish assembly plants for agricultural machinery, and this is economically feasible. The problem is that the plants are scattered, the products are repetitive, the technology is backward, the quality of the equipment is poor, and the level of management is low. China is now utilizing the foundation it already possesses to break through regional and departmental limitations and organize the enterprises, including those of the system of ownership by the whole people and those of the system of ownership by the collective, to realize unity among the enterprises in many forms, to carry out technological reform according to the principle of specialization coordination, and to expand the autonomy of enterprises so that the enterprises can realize specialized coordination production. The Changzhou Tractor Company in Jiangsu Province merged with the older hand tractor company. After they merged, the annual production of diesel motors increased from over 39,000 units in 1978 to 55,000 units, and production of Dongfeng-12 hand tractors increased from 16,000 to 22,000 units. In quality evaluation contests, they won the national gold and silver awards, respectively.

Introduction of technology: To improve the technological and management level of the agricultural machinery industry, and under the guideline of taking self-reliance is the key, introduction of the necessary advanced technology is beneficial. At present, China has been introducing technology that is less costly, produces quick results and large profits, and is widely applicable, and the emphasis in introduction is on singular technologies and manufacturing technologies for key and basic parts.

Quality improvements: During the "Cultural Revolution," these agricultural machinery products were poorly made, causing the products to accumulate and the users to return the merchandise. This situation has obviously changed. China is exerting efforts to carry out quality control over the durability of the materials, the general usefulness of spare parts, simplification of the structure, and the "three guarantees" (guaranteed exchange, guaranteed return, and guaranteed repair). Many enterprises have begun to realize the appropriateness of a full line of products and timely supply. Some inexpensive but good medium and small-size agricultural machinery products have become popular among farmers, and some friends in the Third World believe China's medium and small-size planting machinery, drainage and irrigation machinery, and processing machinery for agricultural and sideline products are also suitable for the needs of their agricultural development.

Scientific development: A backward science and technology is a difficult problem that has to be solved urgently for China to carry out agricultural mechanization. How to zone agriculture and agricultural mechanization according to the different conditions of each locality, how to zone agricultural and livestock production in regions, how to closely combine agricultural machinery and farming techniques so that they can suit each other, how to gradually realize socialization and specialization of agriculture and agricultural machinery production, and how to make agricultural machinery products satisfy the demands of modernization by selection, improvement, and creation so that there can be mass production with high quality and low cost--all of these are important topics facing China's scientific and technical personnel concerned with agricultural machinery. China now has over 40 agricultural machinery research institutes above provincial level, 3 agricultural machinery manufacturing plant design institutes, 11 higher agricultural machinery academies and colleges, and over 140 middle agricultural machinery schools. Each county annually conducts various specialized training classes to train management personnel and tractor operators, but these efforts still cannot satisfy the needs of agricultural mechanization development, and such efforts are now being reorganized and improved.

Energy conservation: The energy consumed by China's agricultural machinery power constitutes only a small proportion of the total energy of the national economy, but it is an industry that consumes the most diesel fuel. Consumption each year constitutes over 40 percent of the total consumption of diesel fuel nationally. Energy conservation is an important task in agricultural mechanization. China has taken three principal measures to solve this problem. The first is to improve the structure of the products. The second is to develop technical reform centered around conservation of fuel consumption and improvements in the management of consumption. The third is to diversify energy sources to develop coal gas motors in regions producing coal, to develop wind-powered motors in Inner Mongolia and in coastal regions, to develop hydraulic-powered motors and hydraulic pumps in the south where rain is plentiful, to popularize marsh gas, and to exert efforts to develop solar energy.

Service orientation: China's agricultural mechanization not only benefits the traditional planting sector but also helps bring about high and stable yields of food grains; aids in the development of economic crops of sugar, cotton, and oil-bearing crops and in the overall development of agriculture, forestry, livestock production, sideline production and fisheries; helps with the basic construction of agriculture and the reform of low-yielding fields (low-yielding fields constitute

one-third of our nation's total area of cultivated land); serves diversification, commune and brigade enterprises, and the unification of agriculture, industry and commerce; and improves the livelihood of the farmers. At the same time, it should better serve to provide spare parts and accessories to users in a timely manner, as well as maintenance, repair, and technical training.

Management of agricultural machinery: Except on state-run farms in China, agricultural machinery stations at people's communes and production brigades have also been established. Each county has set up agricultural machinery repair plants. All of these have served importantly in improving the percentage of operating agricultural machinery. But many problems still exist in this regard. The national average of operating tractors is only about 70 percent. In the future, the management level of farm machinery must be continuously improved.

Rate of development: Because of China's hope of rapidly changing the poor and backward situation in the farm villages and its lack of actual experience, the mistakes of "high speed" and "far-fetched goals" emerged over a relatively long period, and the campaign of "basically realizing agricultural mechanization by 1980" was advocated at one time. Practice has proven that this slogan was not practical. Agricultural mechanization involves the various departments of agriculture, industry, transportation, finance, and education. Its development is determined by the rate of development of industry and transportation of the entire nation, the rate of development of the farm village economy and commune and brigade enterprises, the rate of growth in the training of technical forces in farm villages, the degree of financial credits and loan support provided by the state, and the rate of development of the agricultural machinery industry and of science and technology themselves. Agricultural mechanization must be coordinated with the progress of the entire national economy. The progress of our nation's agricultural mechanization must hasten along with the development of our nation's construction of the four modernizations.

Some International Cooperation Projects

Deputy Minister Xiang Nan said in conclusion that the road of agricultural mechanization for the past 30 years in China includes some successful experiences as well as some difficulties. To hasten agricultural mechanization to benefit the people, the Chinese Government is willing to enter into bilateral and multilateral cooperation with the world's developing and developed nations on the basis of equality and mutual benefit.

He said these cooperation projects include exchanging experiences in the development of the agricultural machinery industry; providing related information to each other; exchanging visits by experts; selling manual agricultural tools, agricultural tools for draft animals, and agricultural machinery and equipment; sending out experts in the use of the above products in order to train the users; transferring blue-prints and manufacturing technology for the products; operating one or several agricultural machinery product assembly plants, assembly lines, or production lines for the users; designing agricultural machinery plants and jointly designing agricultural machinery products needed by both parties or one party; and so forth.

9296

CSO: 4007

PROPOSALS FOR MODERNIZATION OF AGRICULTURE IN NORTHWEST

Beijing GUANGMING RIBAO in Chinese 11 Jan 81 p 2

[Article by Correspondents Chen Yichao [7115 0001 6389] and Gu Yonggao [7357 3057 7559]: "Simultaneously Develop Agriculture, Forestry and Livestock Raising To Change the Poverty-Stricken and Backward Face of the Northwest"]

[Text] At the Northwest Region Agricultural Modernization Symposium recently convened in Lanzhou, comrades in charge of various units in the State Council, scientists, professors, and technicians from nine provinces and regions, and leading cadres in the party and government jointly discussed how to utilize the simultaneous development of agriculture, forestry and livestock raising to change the poverty-stricken and backward appearance of the northwest. They made workable suggestions in that regard.

The northwest region is a vast area accounting for 60 percent of China's total land area. It has about 300 million mu of cultivated land, and 12 percent of the total population of the country. Because agricultural production in this region is fairly backward, it must obtain grain from the state almost every year. Comrades attending the symposium believed that if this state of affairs is to be changed, commodity grain bases will have to be built in places where conditions permit, and a change will have to be made from the extensive cultivation that has been practiced for many years to intensive cultivation, scientific farming, and constant increases in output per unit of area, so as to gradually achieve self-sufficiency in grain.

The northwest region is China's foremost livestock industry base. Acceleration of the development of the livestock industry is a strategic measure that can be taken to alter the poverty-stricken and backward appearance of the northwest and to increase the standard of living of people of all races there. Because of past overcultivation and overgrazing, which have caused desertification, salinization, and deterioration, productivity on almost 3 billion mu has been very low. Addressing this situation, comrades at the symposium called for a compulsory stop to the overloading of grasslands through a system that limits livestock to available vegetation, promotion of seasonal operations during only two or possibly three seasons and rotational pasturing by settled herdsmen, and maintenance of a system of seasonal livestock industry production, in an effort to increase the productivity of livestock industry. There must be permanent use rights for natural grasslands, and use, care, and building should be parts of a whole. In places where conditions permit, emphasis should be given to the growing of grasslands where none currently exists.

Despite the large amount of labor that has been invested during the past 30 years in the building of a forestry industry in the northwest, because of indiscriminate felling, excessive grazing, and reckless cultivation, afforestation has not been able to keep pace with the destruction of forests. This has brought on a steady spread of ecological imbalance, an aggravation of erosion, desertification and salinization, and an unusual shortage of fuel, in particular. Comrades attending the symposium believed that in addition to a firm prohibition of reckless felling of forests, there should be a vigorous creation of firewood and charcoal forests so that existing natural forests can be effectively protected. In places where conditions permit, barren hills, wastelands, and deserts should be zoned for commune members to plant firewood and charcoal forests, with a policy that provides for ownership by those who do the planting. In addition, attention must be given to the building of water-conservation forests, forests to prevent erosion, windbreak and sand-fixing forests, and economic forest systems.

The northwest region is arid and lacking in water. Annual precipitation usually is less than 400 millimeters, and its distribution is irregular. Comrades attending the symposium believed that the solution to the problem of a water shortage in the northwest lies, first, in doing a good job of investigating and studying water resources together with their sensible exploitation for use, with strong control being exercised over planning for and harnessing of small river basins. Second is insistence on scientific use of the water, changing the bad habit of flood irrigation using large amounts of water, and putting a stop to waste from leaks in irrigation ditches, in an effort to improve the water utilization rate. Third is improvement in traditional farming methods, adhering to the struggle against dryness and maintenance of soil moisture through the selection for use of drought-resistant superior varieties in order to compensate for the lack of water.

In order to change the backwardness of agricultural production in the northwest and to solve the problem of food, clothing, and needed goods for the farmers and herdsmen of all nationalities, the comrades attending the symposium proposed the establishment of a Chinese arid and semiarid region agricultural modernization institute and research center that would allow science and technology to play a greater role.

9432

CSO: 4007

DEGENERATION OF SUPERIOR VARIETIES DISCUSSED

Changchun NONGCUN KEXUE SHIYAN [RURAL SCIENTIFIC EXPERIMENTS] in Chinese 10 Sep 80 p 3

[Article by Zun Shi [1415 1395], Dongfeng County Science Committee: "Prevent Degeneration of Superior Varieties Through Mixing"]

[Text] Superior varieties are of major importance in increasing the output of crops to obtain bumper harvests in agriculture. With superior varieties, a fairly good harvest is possible even without increasing manpower or fertilizer.

But nowadays seeds are not pure, and degeneration as a result of mixing is quite serious. Unless vigilance is increased and matters set to rights quickly, a situation will result in which "a new variety is introduced the first year; blossoms mingle to change the variety in the second year; and degeneration and lack of a variety occurs in the third year" with superior varieties no longer being superior in a man-made decline in output. The "great unevenness is a stand of crops, and the lack of uniformity in lustre and color" that we see in the fields is a sign of degeneration caused by mixing of seeds. As a result "after hustling all year long, the entire time has been wasted; superior varieties turn into inferior varieties, and the longer they are grown, the more the blooms become mixed." Consequently, maintenance of superior varieties and prevention of degeneration through mixing must arouse wide attention.

Well, what is the reason for the degeneration of hybrids of mixing?

1. Knowledge of the problem of seed standardization is not sufficient.

Since seed work is a new thing that has just come out during the past several years and has not been promoted for very long in rural communes and brigades, many people lack adequate knowledge about it. At first, they felt this work was mysterious, but after having worked with it for a time, they came to regard it as easy. Their minds became numb, and they lacked a scientific attitude. Their concepts of standardization were fuzzy, and when they worked, they were either not scrupulous about every detail or downright slapdash.

2. The separate areas do not meet requirements; the separation is inadequate.

In numerous propagation fields, the separation between areas does not meet requirements. Sometimes the two areas are at the top of a road and the bottom of a road, or at the top of a slope and the bottom of a slope. In some cases, one row is right next to another row, or fields adjoin each other giving no solution to the problem of cross pollinization.

3. Failure to remove the male part on time or failure to remove it completely.

Failure to make timely or complete removal of the male part in accordance with the laws of growth of the crop. Some people dislike removing the male component in the forenoon when there is dew, but go out in the afternoon. Some people do a half way job of pulling it off, failing to remove it completely. After removing the male part, some people throw it about on the ground where it is picked up by the wind and continues to pollinate.

4. Lack of seriousness in getting rid of mongrels and getting rid of the inferior plants.

Problems in this regard are quite serious. Some people who are unfamiliar with the characteristics of varieties and who are unable to differentiate mongrels and inferior plants do not discard those that should be discarded. Fearful that they will cause a decline in output and damage economic income, some keep as many plants as possible. Some who have a bad work style are assiduous about removing the male part and getting rid of the inferior for the seeds they will keep for themselves, but are sloppy about what they give to others. This is the main reason for the mongrelization of seeds.

5. Inability at harvest time to insure harvesting of a single variety, threshing of a single variety, or storage of a single variety that brings about man-made mix-ups, mechanized mix-ups, mix-ups in labeling, and mix-ups in storage.

In view of the aforementioned problems, measures to prevent degeneration through mixing are as follows:

First, increased understanding with the establishment of a specialized corps.

Need to educate the broad masses of cadres and the people to realize that superior varieties are a major means of increasing the output of farm crops, and that seed work is for the basic capital construction of agricultural production. Seed standardization is a useful measure in agricultural production requiring little investment of capital, producing results quickly, and providing great benefits. Teaching cadres and the masses to understand that seed work is a highly technical activity, which is neither very mysterious nor very simple, and should neither be regarded as a nuisance for which shortcuts should be found nor a matter that is incapable of being satisfied. It requires a scientific attitude of seeking truth through facts and strict observance of technical rules of operation. Every link must come up to standards if there is to be a true improvement in the degree of purity of seeds and degeneration from mixing prevented.

It is necessary to set up and perfect a four-tiered agricultural science network and to establish a corp of peasant technicians for continuous improvement in their technical levels in agriculture in order to meet the requirements of seed work.

Second, conscientious selection of land to solve the problem of separation.

For the two hybrid seed propagation and parent pair propagation fields, selection of plots where the lay of the land is flat and where harvests may be assured despite drought or waterlogging is necessary. The pollen from the stamen of gaoliang and corn is both numerous and light and can be borne on the wind over great distances, and the pistillate silk on corn and the small flower stigma that comes out on gaoliang can accept the pollen and become fertilized. Therefore, for both seed propagation and parent pair propagation fields, conditions of separation must be maintained. Space between propagation fields should be no less than 500 meters, and in the case of parent pair propagation fields, more than 500 meters. The difference in time can be no less than 35 days. In places where conditions permit, natural obstacles that provide separation may be used.

Third, timely and complete removal of the male part.

Timely and complete removal of the stamen is a key determinant of seed quality. By timely is meant that when the female parent's staminate panicle extends an apical leaf and before the pollen has been scattered, the male part should be promptly removed. By complete is meant that there can be no omissions; the entire head must be pulled off with no portion of it remaining. The work of removing the male part must begin when the male parts begin to appear, and must be done daily between 9 a.m. and 10 a.m.

Fourth, get rid of mongrels and get rid of inferior ones.

Getting rid of mongrels and inferior plants is the key to the preservation of seed purity in seed propagation fields and in parent propagation fields. Getting rid of mongrels and inferior plants requires pulling up the mongrel seedlings and inferior seedlings from among the two hybrid parent pairs, putting quality before quantity in order to assure representativeness of the parent pairs. By mongrel seedlings is meant seedlings formed from crossing of blooms or mixing of seeds, and by inferior seedlings is meant white seedlings, yellow seedlings, short seedlings, or deformed seedlings separately produced within seeds. Elimination of mongrel and inferior seedlings is usually done in the three stages of the final singling stage, in the stage before the formation of the stamen and the spreading of pollen, and in the harvesting stage. Mongrels and inferior plants may be eliminated by using the typical characteristics of the parent pairs at different times.

Fifth, assuring single harvest, single threshing, single storage, and prevention of mixing.

At harvest time, usually the female parent is harvested first followed by the male parent, the mixing of the two being carefully guarded against. When placed on the drying ground, the heads containing the fruit of the male and female parents are

piled separately and dried separately, separately cleaned and separately warehoused, and clearly tagged. There is strict control over human mixing, mechanical mixing, mixing as a result of improper labeling, mixing by implements, or mixing in storage.

Seed work is a highly technical activity, and standardization of seeds is a major mark of the modernization of agriculture. We must definitely actively propagate and promote seed propagation and do a good job of purification and rejuvenation work in order to assure superior varieties and prevent degeneration through mixing.

9432

CSO: 8111/0708

CHICKEN RAISING BY SPECIALIZED HOUSEHOLDS URGED

Profits from Chicken Raising by Households

Beijing RENMIN RIBAO in Chinese 3 Jan 81 p 2

[Text] Recently the correspondent visited the home of Liu Xingmin [0491 5281 3046], commune member in the Xiaobao Production Brigade, Songzhuang Commune in Tong County. He is raising a total of 140 chickens at home. In the eastern half of a spacious courtyard, a wooden fence encloses a chickenyard in which there are more than 100 white-feathered, red-combed Leghorn chickens. On the grounds outside this chickenyard, there are an additional 10-odd semi-grown ruby chickens [hongyu ji 4767 3768 7741] in a circle and eating. What a happy sight this flock of chickens is. According to the owner, during this cold winter season, 70 percent of the more than 100 chickens produce one egg a day, which amounts to about 10 jin of eggs.

Liu Xingmin is a 30-year-old commune youth with a junior middle school education who loves to devote himself to the scientific raising of chickens. He has made a specialty of raising chickens, not that he does nothing else. He himself works in the production brigade and is responsible only for taking care of the feed needed to raise the chickens, for inoculations, and for technical guidance. It is his wife at home who both takes care of their children and looks after the feeding of these more than 100 chickens plus six hogs.

The knowledge of scientific chicken raising shows up in numbers of eggs produced, i.e., how to consume the least amount of feed to produce the maximum number of eggs possible. In a year's egg producing period, Liu Xingmin's chickens consume 70 jin of feed and produce 24 jin of eggs a year. Income from each chicken, minus expenses, brings a net profit of slightly more than 10 yuan.

Last year, Liu Xingmin's 140 chickens layed more than 3000 eggs to earn 1000 yuan. Liu Xingmin believes that if the state or the collective were to help out with the supply of feed or the building of chicken coops, a specialized household could raise close to 1000 chickens, which could annually provide the state with 20,000 jin of eggs. Someone estimated that with planned organization of 1000 specialized households in the Beijing suburbs to raise 1000 chickens, each, contracting for the collective raising of chickens or organized by the state as specialized households for raising chickens, an increase in annual egg output by about 20 million jin would be possible. This figure is equivalent to the current

annual egg output of four Beijing Hongxing Chicken Farms (annual egg output of the Hongxing Chicken Farm is only somewhat more than 4.5 million eggs). As compared with the mechanized state chicken farm, development of specialized households to raise chickens holds numerous advantages. One is a saving in investment of capital. Without a need for much investment, work can get under way quickly. Second, when a specialized household raises chickens, for each jin of eggs produced, about one jin less feed is required than for a large chicken farm; the total saving becomes considerable. Third, it would both help satisfy supply to the markets, and increase the incomes of these chicken raising households. Last year, Liu Xingming's increased income from chicken raising alone was more than 1000 yuan. He said, present lack of feed for households raising chickens is a difficulty. It is hoped that the state will adopt the method of supplying feed in return for guaranteed marketing, and organize specialized households for raising chickens. This would be advantageous for doing a good job of supplying the capital with non-staple food, and for the development of chicken raising in rural villages.

Household Chicken Raising Advocated

Beijing RENMIN RIBAO in Chinese 3 Jan 81 p 2

[Text] Once this newspaper reported the case of Harbin retired worker, Wang Shulan (3769 3219 5695), whose household raised 250 chickens, which produced 3000 jin of eggs in half a year, widespread attention was aroused. Today another case involving commune member Liu Xingmin in Tong County has been reported, and people may also feel interested.

In order to improve the supply to urban areas of non-staple foods, during the last two years the state has built a certain number of fairly large scale mechanized chicken farms in some large cities from which initial results are now being seen in increased supplies of fowl eggs to cities. However, in building such chicken farms, the state invests much capital, and the construction period is long. For the present, serious attention to vigorous development of chicken raising by specialized households holds numerous advantages. Once communes and brigades in rural villages promote specialized contracting linking production to the calculation of remuneration in a system of responsibility, very good conditions are created for the development of specialized chicken raising. Quite a few production teams have had remarkable successes in increased output from contracting with work teams or with households, or with individuals for sideline occupations such as chicken raising and hog raising. The growth potential for commune household chicken raising is also very great. Liu Xingmin's household alone raised 140 chickens, which layed more than 3000 jin of eggs a year for earnings of more than 1000 yuan. Someone has figured that if 1000 specialized households in the Beijing suburbs would raise 1000 chickens, the egg production therefrom would be the equivalent of four Beijing Hongxing Chicken Farms on which several million yuan was invested for construction.

We should use the power of government policies to arouse the enthusiasm of myriad peasants to develop a household chicken raising industry. We must break through all kinds of red tape and restrictions that hold back development of a chicken raising industry to truly implement policies. At the same time, we must give

practical help with technical guidance, promotion of superior varieties, and feed supplies to production teams and commune members to solve some of their real problems. If this is done, the rural chicken raising industry is bound to develop greatly, and the supply of fowl eggs in cities will become more abundant.

9432

CSO: 4007

BRIEFS

AGRICULTURAL CADRES TRAINING--Organizations and units under agricultural departments throughout the country have provided training to their cadres since the 3d session of the Party's 11th Central Committee with a view to raising their scientific, technical and management level. Those who had received training as of the end of 1980 included 16,000 cadres in charge of agricultural work at and above the county level and leading cadres of enterprises and institutes concerned, over 600,000 fulltime scientific and technical cadres, over 800,000 cadres and 500,000 technicians of communes and lower units and 9.5 million peasant-agronomists. Training was mostly given at training classes run by colleges and enterprises on request, or at newly restored or established cadre schools and other newly formed training centers throughout the country. [Beijing Domestic Service in Mandarin 2230 GMT 1 Mar 81]

CSO: 4007

RESPONSIBLE PERSONS DISCIPLINED FOR SERIOUS GRAIN MILDEW

Beijing RENMIN RIBAO in Chinese 3 Jan 81 p 4

[Article: "More Than 1.79 Million Jin of Grain Spoiled by Mildew; Grain Authorities in Wuhe County, Anhui Province Violate Storage Regulations; Persons in Charge of Warehouses and Persons in Charge of Storage and Transportation Section of Grain Bureau Severely disciplined"]

[Text] Two serious mishaps involving mildewing of large quantities of grain have occurred, one after another, since 1979 in the grain units of Wuhe County in Anhui Province. Not long ago, following investigation, the Wuhe County CCP Committee and the Wuhe County people's government disciplined those responsible for these two mishaps.

In November 1979, more than 1.36 million jin of wheat piled in the open air at warehouses under direct control of the Wuhe County Grain Bureau mildewed to varying degrees. The quantity with a greater than 90 percent mildew damage amounted to more than 110,000 jin. In September 1980, more than 430,000 jin of wheat flour stored in these warehouses was damaged by mildew and insects. Following inspection by provincial and county health and epidemic prevention authorities, more than 110,000 jin of wheat and more than 120,000 jin of wheat flour was declared inedible.

Investigations by the Wuhe County CCP Committee and the county government showed that these two serious accidents resulted from violation of grain storage regulations by individuals in charge at the warehouses under the control of the Grain Bureau, as well as from the serious bureaucratism of leaders in the County Grain Bureau.

The mildewing of a large quantity of grain in Wuhe County grain units created severe economic losses for the country and disgusted the masses. Following study, the Wuhe County CCP Committee and the Wuhe County people's government decided to cancel the positions inside and outside the party of Liang Jingxiang [2733 2417 0341], the person responsible for the warehouses, and to give a party reprimand and to take disciplinary administrative action against the section chief and deputy section chief of the storage and transportation section of the County Grain Bureau. An investigation of the director and deputy director of the County Grain Bureau has been ordered, following which further action will be taken.

9432

CSO: 4007

ANHUI

BRIEFS

ANHUI PREFECTURE AFFORESTATION--Spring afforestation has progressed smoothly in Huizhou Prefecture, Anhui. As of 20 February, the prefecture had leveled 112,300 mu of hilly land, afforested 3,560 mu, planted 45,000 trees around houses and villages and by roadsides and rivers and cultivated 200 mu of saplings. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 1 Mar 81]

CSO: 4007

BRIEFS

BEIJING DROUGHT RESISTENCE--Drought in the suburbs of Beijing is worsening, posing a serious threat to agricultural production. Recently, the Beijing Municipal CCP Committee and government issued an urgent call, which demanded that the leading departments at all levels rapidly get mobilized and effectively resist drought and reap a bumper agricultural harvest. Since August 1980, there has not been any heavy rain in the municipality. Rainfall in winter was also scarce. By 10 February, there were only 1.52 billion cubic meters of water in the large and medium-size reservoirs in Beijing. This is hardly 50 percent of the water storage in the corresponding period of 1980. The water that can be used is only 0.81 billion cubic meters. On 19 February, although snow fell in the suburbs, there was only 2 to 3 millimeters of rainfall. According to the weather department, rainfall from now to the end of May will be 20 percent less than usual. [HK040726 Beijing City Service in Mandarin 2300 GMT 21 Feb 81]

CSO: 4007

NEGOTIATED PRICE FOR EDIBLE OILS REDUCED

Beijing GUANGMING RIBAO in Chinese 19 Dec 80 p 1

[Article: "Drop in Sale Price of Negotiated Price Refined Sesame Oil and Peanut Oil; Beijing Municipal Negotiated Price Commodities Restructuring Work Unfolds"]

[Text] As of today, an average 5.3 percent decrease will take effect in sale prices of 10 edible oils including refined sesame oil, peanut oil, and sunflower seed oil marketed at negotiated prices to more than 600 grain shops in Beijing Municipality.

Acting in the spirit of the State Council's circular on price control and restructuring of negotiated prices, the Beijing Municipal Grain Bureau has decided to take action to lower the prices of some negotiated price commodities after recalculating item by item costs of negotiated price commodities and following the principle of "only reductions but no increases" and large volume of sales with thin margins of profit. For example, refined sesame oil produced in Beijing and sold in bulk will go from 3.00 yuan per jin to 2.80 yuan per jin. Bulk vegetable oil will go from 2.00 yuan to 1.80 yuan per jin. Hot sesame oil will go from 3.10 yuan to 2.90 yuan per jin. Retail prices for roasted peanuts and roasted sunflower seeds will also drop.

The Beijing Municipal People's Government has made the restructuring of negotiated prices a major link in the stabilization of prices. This work is presently underway throughout the city. The Municipal People Government promulgated trial regulations pertaining to the range of varieties of agricultural byproducts purchased and marketed at negotiated prices as a basis for the restructuring of negotiated prices, while at the same time organizing the forces at all levels of commercial departments in charge to make a thorough check of commodities purchased and marketed at negotiated prices. In the process of checking and implementation, whenever a unit uncovered a commodity that should not have a negotiated price, it changed it to sale at a list price. Because various marketing units went to the suburbs last year to buy up at high prices all the fruit of the hawthorn that people like to eat, the current negotiated retail price in the city's markets has climbed to between 0.70 and 0.80 yuan per jin. Last year winter persimmons sold for 0.16 yuan per jin, but now the negotiated market price is up to between 0.25 and 0.27 yuan. On the 16th of this month, after the Beijing Municipal People's Government decided that these two fruits should be sold at list prices, the commodity pricing authorities formulated seasonal list prices, which will shortly be published and put into effect. The sale price of hawthorn fruit and winter persimmons will decline 10 percent in

comparison with the negotiated sale price for the same quality. The Chongwen District Non-Staple Foodstuffs Procurement Station purchased at negotiated prices more than 30,000 bottles of Wuzhongqu wine from Zhaoqing Prefecture in Guangdong Province, and now that wine may not be sold at negotiated prices, it will lose more than 750 yuan selling it at list prices. Their main concern has been overall economic stability and the welfare of the consumer in resolutely cancelling negotiated prices, changing them to sales at list prices.

9432

CSO: 4007

FRUIT PRODUCTION RECORD SET

Fuzhou FUJIAN RIBAO in Chinese 25 Dec 80 p 1

[Article by Lin Mo [7792 7817]: "Fujian Province Fruit Output Exceeds Highest Recorded Levels Through Implementation of Party Policies and Intensification of Scientific Care"]

[Text] Statistics from the Economic Crops Department of the Provincial Department of Agriculture show that fruit output in Fujian Province totaled 2.59 million dan this year to exceed 1958's highest record of 2.49 million dan for a 4.7 percent increase over the bumper harvest of last year. All of the "six famous fruits," oranges, longyans, lichees, bananas, pineapples, and loquats showed increases in output over last year with the exception of longyans, which declined in output.

This year should have been a year of small production for oranges and longyans in Fujian Province. Early in the year there were long periods of low temperatures and rainy weather, which were followed by two strong typhoons and the threat of serious drought. As a result of frequent natural calamities, the situation was serious. However, as a result of the implementation of the party's policies, the broad masses of cadres and commune members in fruit growing areas increased their enthusiasm for developing fruit production and triumphed over the serious natural calamities to harvest a bumper fruit crop in a year of calamities. During the year, all fruit producing areas in the province have made further readjustments to crop patterns, and have made the most of advantages to enlarge fruit production. In the 10 counties and municipalities of Yongchun, Nanjing, Fuzhou, Huaan, Pinghe, Nan-an, Janou, Sanming, and Minhou, strong emphasis has been given to the building of citrus bases. In Putian, Quanzhou, Tongan, Jinjiang, and Longhai counties, special effort has been given to the building of longyan and lichee bases. In addition to enhancing leadership, the provincial authorities concerned and every prefecture have given vigorous support with funds and material. This year, each prefecture has disbursed special funds for support from their investment funds to be given gratis, and provincial departments concerned have issued loans totaling more than 3.9 million yuan, interest free or at low interest rates to supply more than 20,000 tons of fertilizer. The fruit growing area now stands at more than 1.3 million mu throughout the province, of which more than 100,000 mu was newly planted this year to exceed the highest levels ever recorded.

In view of the past situation in which management of fruit tree production was in a shambles and fruit orchards were neglected as everyone "ate out of a common pot," this year every fruit producing area strengthened and perfected a system of

responsibility for production, adjusting general principles to specific situations to institute specialized teams, specialized households, and specialized workers in various forms of a system whereby production is linked to compensation of remuneration with responsibility being placed on specific individuals. This has produced remarkable results in increased output. The Caikeng Production Brigade of the Longhai Jiuhu Commune in the famed lichee growing area this year instituted contracts for the special occupation of fruit trees, with specific rewards being given for specific output, and scattered fruit trees being contracted for care by households, with responsibility being fixed on specific people. This greatly aroused the initiative of fruit farmers, and despite powerful typhoon attacks and serious insect pest infestations, an unprecedented bumper crop was harvested from the brigade's 1000 mu lichee orchards, for an 80 percent increase over last year to exceed the highest recorded levels. Every locale also vigorously launched scientific growing of fruit and has given serious attention to the spread of advanced orchard techniques to assure a more rapid growth in the fruit output of the entire province.

9432

CSO: 4007

COMMUNE, BRIGADE-RUN ENTERPRISES RAPIDLY GROWING

Fuzhou FUJIAN RIBAO in Chinese 11 Oct 80 p 2

[Article by Yang Zheng (2799 1767): "Develop Greater Material Benefits To Production Teams From Commune and Brigade Run Enterprises"]

[Excerpt] Rural commune and brigade operated enterprises in Fujian Province are like spring bamboo shoots following a rain in their rapid growth. For the past 3 years, total income derived from commune and brigade operated enterprises has annually shown a 4.0 percent incremental increase. This has effectively promoted changes in the economic structure of agriculture and the growth of agricultural production, and to a certain extent has made up for inadequacies in urban industries and the needs of the marketplace. It has also increased foreign exchange earnings for the state, increased peasant income, and increased accumulations for communes and production brigades. The question now is how to more closely relate growth in commune and brigade enterprises to economic benefits for production teams so that production teams will get more material advantages. Take as an example last year's distribution of earnings from commune and brigade operated enterprises throughout the province. Workers' wages totaled 419 million yuan of which only 128 million yuan, or 80 percent, was returned to production teams for distribution. Net profits from enterprises amounted to 210 million yuan. Of this total, 49 million yuan or only 23 percent was used to buy farm machinery, to help out with capital construction for agriculture, to subsidize agricultural production costs, and to operate collective welfare enterprises, and such indirect support to production teams. The amount shared directly with production teams was even less. This causes production teams to have little concern for the development of commune and brigade enterprises. Planting and livestock raising enterprises that produce no income for the time being and from which production team investment realizes no sensible return, is an additional burden. Unless commune and production brigade enterprises gain the concern and support of production teams, their roots will not strike very deep, and it will be difficult for their branches to grow, their leaves to proliferate, and for them to flourish.

9432

CSO: 4007

TIMBER FELLING QUOTAS FULFILLED AHEAD OF SCHEDULE

Fuzhou FUJIAN RIBAO in Chinese 22 Dec 80 p 1

[Article by Yang Tao [2799 3442], "Timber Felling Quotas Fulfilled Ahead of Schedule Throughout the Province; Diligent Implementation of the Provincial Government 'Announcement;' A Stop to the Evil Practice of Overcutting and Denudation"]

[Text] As of 10 December, this year's timber felling quota of 3.15 million cubic meters was fulfilled ahead of schedule.

In order to give the timber areas in Fujian Province a chance to recuperate and multiply, the timber production plans handed down to Fujian Province by the state this year were eight percent less than last year. However, as a result of the excessive cutting and denudation in some areas and the practice of cutting large pieces of timber into smaller ones, not only has serious damage been done to forest resources, but state timber output has been impaired as has the completion of requisition purchase plans. In early October the FUJIAN RIBAO launched a discussion of how to protect forest resources and enliven the economy of the forest industry. In early November, after the provincial government had issued its "Announcement On a Rapid Halt To Reckless Cutting and Denudation for the Protection of Forest Resources," every jurisdiction assiduously carried out the spirit of the "announcement" to put a quick end to the evil practices of overcutting and denudation and converting large pieces of timber into small ones. Numerous communes and brigades enthusiastically completed their timber production quotas and eagerly sold the timber to the state. This year Longqi County had a timber output quota of 184,000 cubic meters, of which it had fulfilled only 90,000 meters or 51 percent of plan as of the end of September. Only an average of 10,000 cubic meters of the quota had been fulfilled each month. From October on, they took action to solve problems of overcutting and denudation and turning large pieces of timber into small ones, as well as problems in production, procurement, and transportation. During October and November, they fulfilled more than 68,000 cubic meters of their timber quota, and they are now close to fulfillment of production plans for the entire year. In Jianyang County, progress in the felling of timber had been fairly desultory, but picked up in October. In November, a new record for output was created with the felling of more than 21,000 cubic meters. By early December, the quota for the entire year had been fulfilled.

9432

CSO: 4007

BRIEFS

GANSU AGRICULTURE, LIVESTOCK--In 1980 Luqu County, Gansu Province, had a bumper harvest in agriculture and animal husbandry. Its grain output totaled 7.15 million jin, some 20,000 jin more than the record set in 1974. Its livestock number exceeded 420,000 head, 11,000 head more than the record set in 1979. In 1980 every commune member was distributed 196 yuan on average, 10 yuan higher than in 1979. [Lanzhou Gansu Provincial Service in Mandarin 1125 GMT 24 Feb 81]

SHANDAN COUNTY AGRICULTURE--Lanzhou, 4 Mar (XINHUA)--Shandan County of Gansu Province has achieved good results in adjusting its cropping plans according to local conditions. Nearly one half of the fields in this county are located on highlands at an altitude between 2,100 and 2,700 meters above sea level. Last year a greater portion of the highland fields were planted to oil-bearing crops, which are more adaptable to high-altitude conditions, whereas the low-altitude lands were mainly used for grain crops. After such adjustment the county had 56,000 mu of oil-bearing crops and 360,000 mu planted to grain crops. Last year's oilseeds output was twice as much as that of 1979, and despite the slight reduction in grain acreage, the total grain production was still 21 percent higher. Noticeable results were also achieved in developing stockraising. Last year the total number of sheep and goats in the county reached some 200,000 head, up by 42 percent compared with the 1979 level. [Beijing XINHUA Domestic Service in Chinese 0138 GMT 4 Mar 81]

PREFECTURE GRAIN PRODUCTION--Compared with 1979, Linxia Hui autonomous prefecture, Gansu Province, increased its 1980 grain output, grain per-mu yield and oilbearing crop output by 13.6, 14.9 and 67 percent respectively. Per capita food grain in the prefecture was 330 jin in 1980, 52 jin greater than in 1979. [SK092250 Lanzhou Gansu Provincial Service in Mandarin 1125 GMT 8 Mar 81]

CSO: 4007

ENTERPRISES RUN BY COMMUNES, BRIGADES CONTINUE TO DEVELOP

Guangzhou NANFANG RIBAO in Chinese 3 Jan 81 p 1

[Article by Tan Guangdou [6009 0342 2435] and Huang Rong [7806 2837]: "Steady Development of Commune and Brigade Enterprises in Guangdong Province in the Midst of Readjustment"]

[Text] During 1980, commune- and brigade-run enterprises in Guangdong Province steadily developed in the midst of readjustment. A total output value of 3.7 billion yuan is predicted, which would be a 10.6-percent increase over last year and would fulfill the plan formulated early in the year. Zhuhai and Shenchuan municipalities showed gains of 60.3 percent and 40.35 percent, respectively. Foshan Prefecture and Guangzhou Municipality had a growth of more than 20 percent. Huiyang, Shaoguan, and Zhaoqing prefectures had a growth of over 10 percent.

Last year, every jurisdiction in Guangdong Province actively implemented the policies of "readjustment, consolidation, restructuring, and improvement," and communes and brigades thereby were able to develop steadily. The situation early in the year when some enterprises "could not satisfy" their quotas as goods could not be marketed and piled up, resulted principally from the irrational placement of some enterprises, overlapping in the construction of plants, and numerous enterprises of the same kinds contending for raw materials and fighting over markets and energy; some enterprises also were producing blindly, with their output finding no markets. In order to turn this situation around promptly, management personnel at all levels of commune and brigade enterprises ranked their priorities category by category, intensified their market analysis, and made the most of commune and brigade enterprises being "small boats that can turn around more quickly," and thereby set about making changes in production or combining plants. They generally retrenched those firms engaged in producing machinery and power equipment, casting, and metal cutting that had high energy consumption, high costs, and unmarketable goods that were piling up. Some also made readjustments, as appropriate, in chemical enterprises, changed around or gave increased attention to planting enterprises, hatchery enterprises, enterprises for the processing of agricultural byproducts, mining enterprises, construction and building materials enterprises, and commercial and service enterprises. They also actively looked into enterprises involving the processing of materials brought in from elsewhere, processing in accordance with models brought in from elsewhere, assembly of parts from elsewhere, and filled in gaps in trade to increase social commodities and to promote the flow in production, supply, and marketing channels. When conditions permitted, those enterprises that had formerly engaged in producing machinery and electrical equipment, castings, and

metal cutting tools converted their production to marketable electric fans, electrical gages, water meters, steel furniture, and hardware items. During the past year, an increase has taken place in planting farms and hatcheries operated by communes and brigades throughout the province, and increased growth has occurred in the growing of rubber, pepper, fruit, medicinal herbs, and tea. Production of major building materials such as red bricks and cement has increased by 20 percent and 39 percent, respectively. Export goods showed a 25-percent increase in total value. Payment for labor increased 50 percent in the processing of goods brought in from elsewhere, in processing in accordance with models brought in from elsewhere, and in the assembly of parts. The scale of growth in commercial and service enterprises has been quite large. Numerous places have not only done a good job of operating commune and brigade enterprises, but at the same time they have intensified production team operation of enterprises in a "troika of horses running along together." Two-thirds of the production teams in Nanhai County are operating industrial sideline industries. This county, whose commune and brigade enterprises formerly had a high base figure for output value, had an output value for its commune and brigade enterprises during 1980 that was 20 percent above that of the previous year.

Last year there were 926 amalgamated enterprises of various kinds in rural villages throughout the province, and these played a very fine role in taking greater advantage of positive elements while avoiding negative ones, in making the most of advantages, and in promoting the development of commune and brigade enterprises.

At the present time, gross income from commune- and brigade-operated enterprises throughout the province amounts to more than 100 million yuan. Of the 10 counties of Shunde, Nanhai, Dongguan, the Guangzhou suburbs, Panyu, Zhongshan, Chaoyang, Chaoan, Xinhui, and Hua, the two counties of Nanhai and Shunde have already broken the 300 million yuan mark, with 51 communes having a gross income of more than 10 million yuan and 154 brigades having a gross income of more than 1 million yuan.

9432

CSO: 4007

BRIEFS

BUILDING MATERIALS GROWTH--Last year, commune and brigade enterprises in Guangdong Province produced a total of 210,000 tons of cement, 6.3 billion red bricks, and large quantities of ceramics, floor tiles, and ceramic tiles for use in construction, and they provided virtually all the lime and gravel used for construction in the cities and villages of the province. Total output value for commune- and brigade-operated construction materials enterprises was 560 million yuan--a 24.5 percent increase over the previous year, and 15 percent of the total output value of commune- and brigade-operated enterprises. A great increase took place in the output of major building materials and commodities by commune and brigade enterprises; the output of cement increased 40 percent over last year, output of lime increased by 9.6 percent over last year, and output of red bricks increased by 20 percent over last year. In recent years, with an intensification in the construction of dwellings in the cities and countryside of Guangdong Province, a temporary shortage of building materials developed. In order to supplement the urgently needed but scarce building materials for national construction, commune- and brigade-run enterprises throughout the province have put to work the excess labor in rural villages and some of the idle labor in towns to form a specialized corp which uses the methods of having those who are able teach others, and of collecting materials locally to operate a large number of lime kilns, brick and tile kilns, and cement kilns. Without spending a cent of state investment funds, and without using state labor quotas or commodity grain, they have provided large amounts of building materials for construction in cities and the countryside, and they have also shouldered the burden for 80 percent of the province's building materials export quotas. In Foshan Prefecture, where commune- and brigade-run enterprises are quite well advanced, the output value for the building materials industry totaled 300 million yuan this year, double what it was the previous year. In recent years, Guangzhou Municipality and Hua County have operated 263 commune and brigade construction materials enterprises. [Text] [Guangzhou NANFANG RIBAO in Chinese 11 Jan 81 p 1] 9432

SILKWORM COCOON OUTPUT--Guangdong Province registered a great increase in silkworm cocoon output last year, with output totaling 425,843 dan, an 8.47-percent increase over the previous year. With the exception of Huiyang Prefecture, all seven prefectures (and municipalities) in the province that are engaged in the production of mulberry and silkworms registered an increase in their average output. Output in Zhanjiang Prefecture increased 75.4 percent, and in Zhaoqing Prefecture 47.4 percent. The three counties of Shunde, Nanhai, and Zhongshan, which are the major producing areas, had varying degrees of increased output. Last year, new silkworm-producing areas in Guangdong Province developed quite rapidly. Lianjiang, Yangchun, Deqing, Loding, Fengkai, Yingde, and Cijin counties used methods such as drawing of

loan funds, reduction or exemption of state requisition grain purchase quotas, reduction or exemption of criteria for award sales of grain, and grants of subsidies for raising of larvae to encourage commune and brigade members to develop a silk-worm mulberry industry. Of the more than 25,000 mu expansion of mulberry lands throughout the province last year, an overwhelming majority of it was in the new areas. Cocoon output from the new areas in the province amounted to 48,894 dan--an increase of 46.38 percent over the previous year. [Text] [Guangzhou NANFANG RIBAO in Chinese 10 Jan 81 p 11] 9432

CITRUS OUTPUT--Guangdong Province had a bumper harvest of oranges last year. Nine prefectures had increases in output, and output provincewide amounted to 2.27 million dan--a 24.7-percent increase over the previous year and a 6.45-percent increase over 1970, which had the highest output since liberation. Output from Guangzhou Prefecture increased 53 percent over the previous year; output from Zhanjiang Prefecture increased 155 percent; and Foshan Prefecture and Zhaoqing Prefecture increased 100 percent and 80 percent, respectively. Last year all the rural villages in Guangdong Province instituted and perfected systems of responsibility for production, linking output and increases in output in excess of quota to rewards. All commune members were also encouraged to grow fruit trees in the five besides [beside houses, villages, roads, waterways, and fields] in a system of proceeds to the growers. This greatly encouraged cadres and commune members to grow and care for fruit trees. In the orange-producing region of Shantou Prefecture, despite typhoon damage last year's total output of oranges still amounted to 900,000 dan, 35,000 dan more than the previous year, thanks to the intensification of care by fruit growers. [Text] [Guangzhou NANFANG RIBAO in Chinese 5 Jan 81 p 1] 9432

TEA PRODUCTION--Guangdong Province had a good tea harvest last year. Preliminary statistics show an output totaling more than 230,000 dan--an increase of 8.5 percent over the previous year, and a 7.43-percent increase over the 1979 highest recorded level. The tea farms run by the Overseas Chinese Farm Administration and the State Farm Bureau showed increases in output over the previous year of 16 percent and 12.7 percent, respectively. Tea leaf quality throughout the province also generally improved. For the past 2 years, all tea-growing areas of Guangdong Province have taken action to restructure, combine, transfer personnel to a lower level, and change planting in accordance with the special characteristics of tea production and in accordance with policies of "adapting general methods to local situations and appropriate centralization." They also have set up and further implemented various forms of a system of responsibility for production in order to arouse the initiative of tea farmers. At the same time, each tea-producing area has adopted a series of measures for the scientific farming of tea. This, plus the warm temperatures of spring, the early picking of tea, and the year-round evenness in rainfall, resulted in high output and superior quality of tea. [Text] [Guangzhou NANFANG RIBAO in Chinese 1 Jan 81 p 1] 9432

RICE PRODUCTION--Guangzhou, 26 Feb (Xinhua)--Owing to the use of new fine seeds, Gaozhou County in Guangdong Province reaped 754 million jin of rice in 1980 although the county's acreage of paddy rice fields decreased by 12,000 mu. The rice output in 1980 hit an all time high topping 1979, a bumper harvest year, by 11 percent. [Beijing Xinhua Domestic Service in Chinese 0222 GMT 26 Feb 81]

PLA SPRING FARMING--Recently, the Guangdong military district issued a circular, which demands that its PLA units take part in and support local spring farming. The party committees at all levels and the party branches must grasp spring farming as an important task. In accordance with the local situation of spring farming, it is necessary to make arrangements for the work of the PLA units, in order to provide more time and personnel to take part in spring farming. The circular revealed that there had been less rain in the province since 1980. The situation of drought was more serious. Medical and public health personnel must also go deep into the countryside to help the masses prevent and cure diseases. The armed forces departments at all levels must mobilize the militia to take part in spring farming and ensure smooth progress of spring farming. [Guangzhou Guangdong Provincial Service in Mandarin 1120 GMT 25 Feb 81]

CSO: 4007

GUIZHOU

BRIEFS

COMMUNE, BRIGADE ENTERPRISES--Since 1979, the people in Guizhou have readjusted the commune and brigade enterprises. The number of commune and brigade enterprises has been reduced from 34,000 in 1978 to 16,000, while the number of persons employed by these enterprises has been reduced from 330,000 to 210,000. Despite these reductions, the total output value, income and profits of these enterprises in 1980 throughout Guizhou remained at the same level as during the 2 previous years. The state financial revenue in 1980 increased from 11.7 million yuan in 1979 to 20 million yuan in 1980. [Guiyang Guizhou Provincial Service in Mandarin 2315 GMT 2 Mar 81]

CSO: 4007

UNPRECEDENTED BUMPER HARVEST OF ECONOMIC CROPS REAPED

Harbin HEILONGJIANG RIBAO in Chinese 6 Jan 81 p 1

[Article by Yang Yintang [2799 5593 1016] and Yang Peichun [2799 1014 2504]: "Unprecedented Bumper Harvest of Economic Crops Throughout Province; Making the Most of Advantages and Planting in Accordance With Local Conditions; Quantity of Sugarbeet Requisition Procurement Double Actual Quantity Processed in 1979; More Than Two Fold Increase Over 1979 in Small Oil Crop Output; Total Flax Output Increases 73.1 Percent"]

[Text] In addition to the fine harvest of grain in Heilongjiang Province last year, an unprecedented bumper harvest of economic crops was reaped. Most recent statistics show that the 21 sugar refineries in the province have already purchased more than 2.79 million tons of sugarbeets, a doubling of the quantity actually processed in the previous year. Procurement is continuing. The quantity of various kinds of oil crops purchased already exceeds 4 million dan. When the seeds that have been held back and the portion of personal consumption are added to this, total output shows a more than two-fold increase over 1979. Sunflower seed output increased about three-fold the previous year; and the output of peanuts and castor beans more than doubled. Quantity of output of bast fiber crops also showed large increases. Total output of flax increased 72.1 percent over the previous year. Total output and quantity of requisition procurement of the three main economic crops, sugarbeets, flax, and sunflower seeds, created the highest records in history.

The heartening bumper harvest of economic crops last year was the result of the readjustment of the internal composition of agriculture throughout the province in accordance with natural laws and economic laws. Since the readjustment by the provincial government in 1979 of policies pertaining to the requisition purchase price paid for economic crops, many places suited to the growing of economic crops have expanded their economic crops. Last year, the area sown to economic crops throughout the province amounted to 10,183,000 mu, a proportional increase from 4.9 percent of the total sown area throughout the province in 1979 to 7.9 percent. In eight counties of Nenjiang Prefecture including Baiquan, which derived substantial benefits from the growing of sunflower seeds, the net increase in area was more than 100,000 mu. In 11 counties including Shuangcheng, Zhaodong, Anda, Fuyu, and Fujin, which had outstanding results from the growing of sugarbeets, net increase in the sugarbeet acreage last year was from 40,000 mu to 90,000 mu, while in the counties of Qingan, Baiquan, Boli, and Lanxi, where results in

increased output were not evident, the sugarbeet acreage was reduced, and following readjustment per unit yields showed remarkable increases. While adjusting planting ratios, every jurisdiction also intensified care of economic crops, and improved growing techniques. In Anda County, 100,000 mu of sugarbeets were irrigated. This amounted to more than half the total sugarbeet acreage. A general increase occurred in the figures for protection and maintenance of seedling growth for sugarbeets, flax, and sunflowers. Techniques such as the mixing of pesticides into sugarbeet seeds, pollination of sunflowers by bees and by man, and covering the ground with plastic where peanuts are grown were promoted.

The bumper harvest of economic crops brought considerable economic benefits to the state, the collective, and to commune members. In former years, by the end of January the sugar refineries in Heilongjiang Province would shut down for lack of raw materials. The period of processing lasted only 120 days. This year, even despite a 20 percent increase in daily sugarbeet processing capabilities, the processing period lasted 180 days. Not only was the processed fiber from flax sufficient to satisfy the needs of Harbin's textile manufacturing plants, but an additional more than 20,000 tons was exported, thereby increasing commune and brigade earnings. Because of an expansion in sugarbeets at Baoshan Commune in Anda County, per capita income increased 44 percent over 1979. Last year Gannan County had a per capital income of 130 yuan for every member of its rural population from sunflowers alone.

9432

CSO: 4007

STATE FARM SYSTEM EMPHASIZES TRAINING PERSONNEL

Harbin HEILONGJIANG RIBAO in Chinese 8 Jan 81 p 1

Article by Zhang Zhaochen [1728 0340 5256] and Yuan Fengming [5913 7685 7686]:
 "State Farm System Emphasizes Training of Personnel for Construction" Reform of
 Training Structure and Readjustments in Pattern of Schools"]

[Text] The educational system established by the state farm system of Heilongjiang Province, which was set up to meet the characteristics of farm and in accordance with the needs of construction, has had remarkable results. Now there is a virtual 8 years of training given throughout the farming area. A group of vocational senior middle schools are being operated, eight medium size specialized schools have been either revived or newly opened, and there is one fulltime agricultural university. Additionally 590 night schools for production team workers have gone into operation, as well as eight schools that give refresher courses for teachers, 10 radio broadcast correspondence sites, and one institute for advanced cadre training. They have established their own bases for training personnel.

Every echelon of leadership in the state farm system of Heilongjiang Province has come to realize gradually through experience in building production how muddled the thinking expressed in the saying, "unless seedlings are given attention, output will decline in that same year, but if a person is not cared for, 10 years are not too long to do something about it," and regard education conducted by enterprises as part and parcel of the job. In order to shorten the battle line, to concentrate use of manpower and material resources, and raise the quality of instruction, they first made a readjustment of the distribution of middle and primary schools. Essentially they made an arrangement whereby production teams operate primary schools; branch farms operate middle schools; and the main farm operates senior middle schools. Small size production teams operate instruction sites. Those production team primary school classes where numbers of pupils are few can double up in classes. While readjusting the layout of schools, they actively reformed the structure of secondary education. Acting in accordance with an overall reform plan put forward by the Provincial State Farm Bureau on the operation of vocational senior middle schools and providing for "first year for trying out, second and third year in development, and fourth year substantially set," 38 vocational senior middle schools began operation last year, and 110 special classes were set up in affiliation with regular senior middle schools. Students attending schools numbered 11,000 to become a reserve force of farm workers.

It is estimated that by 1985 the number of technical personnel of all kinds needed in the entire farming area will double. The number presently provided annually by the state to farming areas is far from satisfying needs. In facing up to this situation, the Provincial State Farm Bureau decided that in addition to building up the presently existing Heilongjiang Eight One Agricultural University, it would also operate technical secondary schools. Proceeding from a foundation layed down in 1978 with the revival or new construction of a total of six technical secondary schools for farm machines, farm technology, teacher training, and hygiene, in 1979 they opened a forestry school. A school of finance and economics is presently under construction. Students in these technical secondary schools number 2000.

As a result of readjustment, farming areas have now formed their own preliminary educational systems, and the quality of education is improving year by year. Eight One Agricultural University and several technical secondary schools have already trained more than 2500 high level and medium level special technicians for farming areas. Students registered in institutions of higher learning throughout the farming area in 1980 amounted to 7.4 percent of the total number of people expected to graduate, for a 3.1 percent increase over 1979.

9432

CSO: 4007

BRIEFS

REFORESTATION SURVEY--Harbin, 27 Feb (Xinhua)--Heilongjiang Province recently completed a reforestation survey. More than 4,700 technicians and cadres took part in the survey. Some 46.37 million mu of forest land was surveyed. Since liberation the province had felled 36.27 million mu of trees. By the end of 1979 it had reforested 31.1 million mu. In view of this, the provincial forestry general bureau urged that great efforts be made to conduct reforestation well and to rebuild China's biggest forest area. [Beijing Xinhua Domestic Service in Chinese 0147 GMT 27 Feb 81]

GRAIN OUTPUT--Mudanjiang Prefecture reaped 2.27 billion jin of grain in 1980 and handed over to the state 820 million jin of marketable grain. The grain output in 1980 increased by 557 million jin, an increase of 32.4 percent over 1979, the highest figure achieved in this prefecture. [SK041004 Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 1 Mar 81]

CSO: 4007

BRIEFS

AFFORESTATION CIRCULAR--On 23 February, the Henan Provincial People's Government issued a circular on launching activities of afforestation in the cities and countryside throughout the province. The circular pointed out that the present period is the best season for planting trees from 1 to 31 March, which is called the "shock month for planting trees." It said that afforestation can promote the development of agriculture and animal husbandry and occupies an important position in the four modernizations and the people's daily life. All trades and professions must take part in afforestation during the afforestation month. It is necessary to ensure that each person plant one to three trees a year, curb the evil wind of destroying the forests and adopt effective measures to prevent forest fires. The leadership at all levels must further strengthen their leadership over afforestation and take the lead to plant trees. [Zhengzhou Henan Provincial Service in Mandarin 1100 GMT 24 Feb 81]

CSO: 4007

NEW HYBRID RICE STRAIN PROVES BIG SUCCESS

Beijing GUANGMING RIBAO in Chinese 9 Jan 81 p 1

[Article: "Large Area Test Plantings of New Rice Line 77032 Succeed"]

[Text] New rice strain 77032, formed from hybrid geng and xian rice varieties, has been successfully tested on large areas in Jiangsu Province. This represents a new breakthrough in the breeding of rice.

The Jiangsu Provincial Academy of Agricultural Science bred 77032 by crossing xian and geng rice and then recrossing with geng in several generations of breeding. It is characterized by short stems, long heads, numerous grains, resistance to lodging, no dropping of grains, and good quality of polished rice. Following test plantings during 1978 in Wujin and Jianhu counties, it underwent extensive test plantings in Donghai County during 1979 which demonstrated that 77032 could produce high output. More than 10,000 mu at Huangchuan Commune in Donghai County were planted to 77032, with yields averaging about 1,000 jin per mu. This strain has a short growing season, which is helpful for rotational cropping of rice and wheat in two crops. Plants are straight, permitting good penetration of light and making for intercropping with green manure late in the season. It possesses definite resistance to sheath and culm blight and to bacterial blight.

This year, 77032 will be further test-planted extensively in Jiangsu. During the past 2 years it has also been introduced for test planting in Shandong, Zhejiang, Anhui, Henan, Hubei, Hunan, Hebei, Liaoning, Shanghai, and Tianjin. It has been welcomed by the masses in those places.

9432

CSO: 4007

DOUBLE-CROPPING CAN YIELD MORE THAN TRIPLE-CROPPING

Beijing GUANGMING RIBAO in Chinese 9 Jan 81 p 1

[Article: "Output From Two Crops of Rice and Wheat May Exceed Output From Three, Large Area Rice-Growing Experiments on High Yields Conducted at Numerous Points in Jiangsu Attest"]

[Text] Editor's Note: Provincial and prefectural science committees in Jiangsu Province have organized large-scale, large area experiments at numerous sites, thereby demonstrating with facts that yields from double-cropping of rice and wheat may be greater than yields from triple-cropping. This is a fine way of doing things. It is good because quite accurate conclusions were derived by comparative testing and testing through practice.

Development of agricultural production must rely on government policies and rely on science and technology. In order to do a good job of scientific farming, including doing a good job of reforming the system of farming, it is necessary first of all to have a scientific attitude. A scientific attitude means an attitude that adheres to practice as the sole standard for checking truth. Ours is a vast land in which natural conditions differ in thousands of ways and where there can positively be no reliance on administrative fiat or arbitrary action on the basis of a single pattern. To do so would not only make development of production impossible but would also damage the welfare of the farmers.

Double-cropping of rice and wheat may yield more than tripple-cropping is the conclusion reached by the Jiangsu provincial conference for summarization and exchange on experiments in high rice yields.

In 1980, provincial and prefectural scientific committees in Jiangsu Province organized 26 sites in seven prefectures throughout the province to conduct experiments on high output, using various rice varieties on 100-mu tracts. Experiments included early rice, single crops of rice, late rice, and late season rice. They explored ways to get high output in different places with different rotations as a guide for large area production. Communes and brigades at the grassroots level that engaged in the experiments received guidance from experts, professors, and

technicians from the Jiangsu Provincial Academy of Agricultural Science, the Nanjing Academy of Agricultural Science, the Jiangsu Agricultural Academy, and prefecture and county agricultural institutes. During harvesting, too, provincial, prefectural, county, and commune units concerned sent people to conduct measuring and weighing in common.

Results of the experiment demonstrated that output from double-cropping of rice and wheat may exceed that from triple-cropping. Take the 100-mu tract high-yield test site at the Tianzhuang Production Brigade, Wantou Commune, Hanjiang County as an example. Yields totaled 2,014 jin per mu in the double-cropping of rice and wheat, while triple-cropping in large fields produced yields of only 1,515 jin per mu. The 100-mu tract high-yield test site in Gushan Production Brigade, Damiao Commune, Tongshan County and the 200-mu tract high-yield test site at Huangchuan Commune, Donghai County produced greater yields per mu from double-cropping of rice and wheat than the average yields from a triple-cropping system in Sunan Prefecture. The experiment also showed that output from geng rice may overtake or surpass that from hybrid rice. Presently, numerous test sites are growing new geng rice varieties or strains, gaining a body of experience in the growing of geng rice. Results of the experiment also demonstrated that climate and sunlight conditions in prefectures north of the Huai also favor the growing of paddy rice. Thirteen of the 27 experimental sites throughout the province were located north of the Huai, where yields averaged 1,201.43 jin per mu.

Between 27 and 30 December last year, personnel who participated in the experiment assembled in Ganyu County to summarize and exchange experiences about high yields, consistent yields, low costs, labor savings, and increased benefits from rice. In particular they exchanged farming techniques for geng rice and formulated plans for 1,000-mu tract high-yield experiments countrywide in 1981.

9432

CSO: 4007

BRIEFS

COCOON PRODUCTION--Suining County, Jiangsu Province, harvested 710,000 jin of cocoons in 1980, an increase of 37 percent as compared with 1979. The county has 6,800 mu of mulberry trees. [OWO21321 Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 25 Feb 81]

AFFORESTATION INCREASE--Xuzhou Prefecture in Jiangsu Province has whipped up an upsurge in afforestation. So far the prefecture has afforested 8,000 mu, built shelter forests for 220,000 mu farmland and planted tong trees on 23,800 mu of farmland. It has also planted some 4 million trees and cultivated 1,890 mu of saplings. [OWO21321 Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 27 Feb 81]

AFFORESTATION WORK--In response to the call of the Ministry of Forestry and Provincial People's Government, people in various parts of Jiangsu have stepped up afforestation work. As of late February, they had afforested 76,000 mu of large tracts of land and planted 1.1 million trees around farmland and 50 million trees around houses and villages and along roads and waterways. Many areas have established various systems of responsibility to promote afforestation. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 2 Mar 81]

AFFORESTATION CONFERENCE--On 2 March the Jiangsu Provincial People's Government held a telephone conference to mobilize people throughout the province to plant trees. Vice Governors Zhou Ze and Jin Xun spoke at the conference. The provincial government issued a circular in early February calling on all localities to pay attention to afforestation. However, many places have not taken any action so far. The conference pointed out that in the past the masses' enthusiasm was dampened by often-changing policies caused by "left" influences, and that it is necessary to explain to the masses the policies on afforestation and to reaffirm that trees planted by commune members around houses and in places designated by production teams are owned by them. The conference called on cadres and the masses of all trades and occupations to actively take part in afforestation under the unified leadership of local governments. [Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 2 Mar 81]

COUNTY HOG-RAISING--As of the end of February, there were more than 470,000 hogs in Xinhua County, Jiangsu, an increase of some 27,000 over that in January. The County Revolutionary Committee has reaffirmed the policies concerning hog-raising, which have fired the enthusiasm of cadres and commune members to raise hogs. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 3 Mar 81]

LIAONING

BRIEFS

MUNICIPALITY'S DROUGHT--In Jinzhou municipality, Liaoning, 47 percent of the farmland is stricken by drought. The Municipal CCP Committee and government have sent cadres in charge of agricultural work to rural areas to inspect spring farming preparations. [SK092247 Shenyang Liaoning Provincial Service in Mandarin 2200 GMT 8 Mar 81]

CSO: 4007

SHANGHAI

BRIEFS

COLD SPELL--A cold spell similar to that in 1956 and 1958 has hit Shanghai since 23 February. The highest temperature on 26 February was between 0 and 1 degree centigrade. The temperature dropped to between minus 5 and minus 6 degrees centigrade on 27 February morning. The cold spell may affect the growth of wheat, rape and vegetable crops. [Shanghai City Service in Mandarin 2300 GMT 27 Feb 81]

CSO: 4007

BRIEFS

TONG OIL--Zhengzhou, 5 Mar (XINHUA)--Total tong oil output of 240,000 mu of tong trees in Shaanxi's Xixia County has increased from 4.5 million jin in 1979 to 6.6 million jin in 1980, representing a peak output record. The county recently planted 120,000 mu of tong trees. [Beijing Xinhua Domestic Service in Chinese 0057 GMT 5 Mar 81]

CSO: 4007

SICHUAN

BRIEFS

LEZHI COUNTY AGRICULTURE--In 1980, Lezhi County, in Sichuan, readjusted its cropping arrangements according to local conditions. Grain acreage was reduced by 20,000 mu, and the land was used to grow additional cash crops such as cotton, rape, peanuts, sesame and so forth. Another 10,000 mu of collectively farmed land were turned over to commune members as private plots. As a result, every commune and production brigade produced more than before. The county's total grain output in 1980 increased by more than 200 million jin over 1979; cotton by 11.5 percent; and output of rape seed, peanuts, sesame, silkworm cocoon, oranges, medicinal herbs and so forth surpassed all past records. The success was remarkable because the country suffered a serious drought in 1979 and again in spring 1980, and 150,000 mu of cotton and 380,000 mu of corn had to be sown twice. [Beijing Xinhua Domestic Service in Chinese 0123 GMT 28 Feb 81]

CSO: 4007

BRIEFS

AFFORESTATION CIRCULAR--The Xinjiang Regional People's Government issued a circular on 12 February on spring afforestation. The circular called for relying on mainly collective efforts in afforestation, developing state-run forests and encouraging individuals to plant trees. It reiterated that trees planted by individuals around their houses and in plots designated by production brigades will be owned by the individuals. It urged factories, mines, army units and schools to plant trees in their respective compounds and join efforts in building shelter belts, restoring ecological equilibrium and perfecting a production responsibility system in afforestation. [Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 5 Mar 81]

SPRING FARMING--Supply and marketing cooperatives in Changji Hui Autonomous Prefecture and Turpan Prefecture, Xinjiang, have speeded up the supply of chemical fertilizers and insecticides to rural areas in support of spring farming. As of 12 February, cooperatives in Changji had supplied more than 7,000 dun of chemical fertilizers and a certain amount of insecticides and small farm tools. From January to mid-February, cooperatives in Turpan supplied more than 3,000 dun of chemical fertilizers and a certain amount of insecticides. [Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 27 Feb 81]

PRODUCTION READJUSTMENT--The Tacheng Prefectural CCP Committee, Xinjiang, has taken measures to readjust 1981 agricultural and pastoral production, including efforts to raise the per-mu yield and develop the diversified economy in addition to fulfilling the grain production plan. In 1981 the prefecture plans to sow 2.7 million mu of grain crops and to further raise the proportion of dams to 50 percent of all domestic animals. [Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 27 Feb 81]

FOREST PROTECTION CIRCULAR--The Xinjiang Regional People's Government issued a circular on 20 February calling on all local governments to strengthen forest protection and fire prevention work in spring. The circular instructed them to examine their current forest protection and fire prevention measures and to strengthen the offices in charge of this work. It also asked judicial and public security organs to improve security work and maintain order in forest zones. [Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 2 Mar 81]

TRACTOR UTILIZATION--Urumqi, 3 Mar (Xinhua)--In the past 2 years, each commune in Xinjiang's rural and pastoral areas owned 17.7 tractors on the average. According to statistics of the Xinjiang Uyghur Autonomous Regional Agricultural Machinery Company, in the past 2 years the company sold 10,844 tractors to rural and pastoral areas, of which 60 percent were large and medium-sized tractors and 40 percent hand-guided tractors. [Beijing Xinhua Domestic Service in Chinese 0008 GMT 3 Mar 81]

BRIEFS

SPRING PRODUCTION--The Xizang Regional People's Government issued a circular on 26 February calling for doing a good job in spring agricultural and pastoral production. The circular describes this task as significant for furthering economic readjustment and political stability and speeding up the building of a united, rich and civilized new Xizang. The circular calls for further promoting the system of responsibility in production, preparing well for spring sowing, taking measures to prevent and combat natural disasters, caring well for newborn and pregnant livestock, and strengthening leadership over spring production. [OW031051 Lhasa Xizang Regional Service in Mandarin 1130 GMT 27 Feb 81]

CS0: 4007

BRIEFS

SPRING FARMING--Kunming, 5 Mar (XINHUA)--Preparations for 1981 spring farming are in full swing in Yunnan's rural areas. By late February, the province had accumulated 50 billion jin of farmyard manure and interplanted 300,000 mu of early rice and other early-maturing crops. Since late last year when year-end income was distributed, strenuous efforts have been made by Yunnan's rural areas to sum up experience and map out production plans and methods in preparation for the 1981 spring farming. Some 1.66 million mu of farmland have been completely plowed in Qujing prefecture, one of the major grain producing areas in Yunnan. In Dali Bai autonomous prefecture, sufficient amounts of thin plastic sheets have been prepared to protect 32,000 mu of seedlings from low temperature in early spring. [Beijing Xinhua Domestic Service in Chinese 0114 GMT 5 Mar 81]

CRO: 4007

ZHEJIANG

BRIEFS

RICE CULTIVATION--Yuhang County in Zhejiang has planted 425,000 mu of early rice this year. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 1 Mar 81]

CSO: 4007

AUTHOR: XU Chengji [1776 2052 1015]
MA Zhiyao [7456 2584 3852]

ORG: Both of Chengdu Institute of Biology, Chinese Academy of Sciences

TITLE: "Steroids in Plant Tissue Culture and Their Metabolism"

SOURCE: Shanghai ZHIWU SHENGLIXUE TONGXUN [PLANT PHYSIOLOGY COMMUNICATIONS] in Chinese No 6, Dec 80 pp 6-11

ABSTRACT: Plant tissue culture provides a good experimental system for studying steroids and their metabolism. Many steroids have been isolated from tissue culture materials while many steroids have also been used as tissue culture material to study their bio-synthesis and conversion. One or several types of metabolic enzymes normally exist in a complete plant may no longer exist in the corresponding tissue culture material to form an obstruction to steroid metabolism. In some metabolic processes, the deficiency of an enzyme may cause some metabolic products to accumulate in tissue culture. This characteristic may be utilized to proceed with large scale steroid transformation to produce the needed steroids. At present, the density of the needed substance thus produced in tissue culture is relatively low, however. Through selection of plant tissue, a change of the culture medium and/or the condition, the problem may be resolved. Many studies on the subject have been reported. This paper gives a comprehensive discussion of these studies. Most references cited are of Western origin.
This paper was received for publication on 19 Nov 79.

AUTHOR: SU Shaoquan [5685 1421 2164]

ORG: Northeast College of Agriculture

TITLE: "A Discussion of Problems of Chemical Weeding in Northern Regions of China"

SOURCE: Shanghai ZHIWU SHENGLIXUE TONGXUN [PLANT PHYSIOLOGY COMMUNICATIONS] in Chinese No 6, Dec 80 pp 12-19

ABSTRACT: Chemical weeding is an important part of agricultural chemistry and it is especially essential in state-operated farms in North China where the fields are large. Chemical herbicides began to be used extensively in the state-operated farms in Heilongjiang Province in the early 60's. By 1978, one fourth of the cultivated acreage of that province was involved. With the development of petrochemistry, chemical weeding is expected to be further extended in the future. This paper discusses the special climatic conditions of North China, with the dry springs, wet summers, and seasonal winds, and their effects on certain types of herbicides. Drug resistance of weeds, effects on ecological balance, and the technique and tools used to apply various herbicides are also among problems to be overcome in the future.
This paper was received for publication on 22 Dec 79.

AUTHOR: LIANG Zhen [2733 1513]
TANG Peisong [3282 1173 2646]

ORG: Both of Institute of Botany, Chinese Academy of Sciences

TITLE: "Effects of Hydrogen Sulfide and Low Temperature on the Growth and Respiration of Rice Seedlings"

SOURCE: Shanghai ZHIWU SHENGLIXUE TONGXUN [PLANT PHYSIOLOGY COMMUNICATIONS] in Chinese No 6, Dec 80 pp 19-23

ABSTRACT: Our past studies on the respiratory metabolism of rice seedlings indicates it is primarily through a tricarboxylic acid cycle. The major factor for rotten seedling is oxygen deficiency while organ formation of seedlings depends upon aerobic respiration. The prevention of rotten seedlings, therefore, requires a satisfactory oxygen supply and other environmental factors, such as temperature. This paper reports 2 experiments on seedlings (6-day old) treated with hydrogen sulfide of various densities to determine the oxygen deficiency and the rate of growth of the seedlings and on seedlings treated with an environment of low temperature of various durations to determine the oxygen utilization rate and the rate of growth of the seedlings. The purpose of the studies is to clarify the leading factors influencing the growth of strong rice seedlings. This paper was received for publication on 12 Feb 80.

AUTHOR: ZHENG Guanghua [6774 0342 5478]
XU Bensel [1776 2609 5019]
GU Zenghui [7357 1073 6540]

ORG: All of Beijing Botanic Garden, Institute of Botany, Chinese Academy of Sciences

TITLE: "Problems in Determining the Vigor of Cold Damaged Bean Seeds"

SOURCE: Shanghai ZHIWU SHENGLIXUE TONGXUN [PLANT PHYSIOLOGY COMMUNICATIONS] in Chinese No 6, Dec 80 pp 25-28

ABSTRACT: Traditionally, the viability of seeds obtained with regular viability test is used as the major index to judge the quality of seeds. As the viability test is performed under a most suitable condition for germination, the resultant germination rate does not always correspond with the actual sprouting rate in the fields when the seeds have undergone an aging process caused by the uniformity, the adversity resistance, the storage condition, etc. In recent years attention has been given to the difference between the concept of viability and that of vigor. The vigor of seeds is expressed not only under the most suitable condition but also under a stress environment. For this reason, experiments are performed on cold damaged bean seeds with 3 different techniques to determine their vigor. The halved seed technique (retaining a complete plumule) is proved to be the best for the purpose of determining the vigor of these seeds. This paper was received for publication on 14 Mar 80.

AUTHOR: DONG Weixiang [5576 3262 4382]

ORG: Shanghai Institute of Plant Physiology, Chinese Academy of Sciences

TITLE: "A Type of Extracorporeal Chloroplast of a Special Morphology"

SOURCE: Shanghai ZHIWU SHENGLIXUE TONGXUN [PLANT PHYSIOLOGY COMMUNICATIONS] in Chinese No 6, Dec 80 pp 35-37

ABSTRACT: Although Hill [Hill ?, D. O. NEW BIOL 1972 pp 125-126] has summarized and named all extracorporeal chloroplasts of various shapes, the results of most studies indicate that there are mainly 2 types, the intact (Class I) and the broken (Class II.) The author reports the observation of another type of intact chloroplast, which is enveloped by cytoplasmic materials of various thickness. In that layer of cytoplasmic substance, there are nucleated carbohydrate, mitochondria, and small bubbles, which, with the one or several chloroplasts enclosed in that layer, form a multi-cell complex. This special morphology of an intact chloroplast is similar to the one reported by Larsson et al [ACTA BIOCHIM. BIOPHYS. Vol 245 No 3, 1971 pp 425-438] except for the method of its preparation. The author did not use polymers, therefore, there was no possibility of polymers being the cause of such cytoplasmic envelope.

This paper was received for publication on 15 Jan 80.

AUTHOR: HUANG Chunshen [7806 4783 4176]

ORG: Guilin Municipal Huamu [Decorative Plants] Company

TITLE: "Preliminary Experiment on Obtaining Test Tube Plants of 4 Types of Decorative Species With Tissue Culture Method"

SOURCE: Shanghai ZHIWU SHENGLIXUE TONGXUN [PLANT PHYSIOLOGY COMMUNICATIONS] in Chinese No 6, Dec 80 pp 37-40

ABSTRACT: In 1960 Morel of France reported successful tissue culture of Cymbidium. Today, this species is being industrially produced with the technique. For the purpose of studying the principle of fast asexual propagation of other decorative plants and the possibility of applying the test tube production technique, in Oct 78 the author and colleagues proceeded with tissue culture experiments of the 4 species of Dianthus caryophyllus, Hemerocallis fulva L., Gladiolus sp., and Citrus microcarpa. Live and complete plants of the 4 species have been obtained through induction of various different organs of the plants. They have been transplanted from test tubes into pots and are growing normally. Some have already bloomed. The experimental procedure is reported.

This paper was received for publication on 7 Dec 79.

AUTHOR: WU Guangyao [0702 0342 5069]
DENG Yuefen [6772 1971 5358]

ORG: Both of Department of Biology, Beijing University

TITLE: "Simple Method of Preparing RuBP"

SOURCE: Shanghai ZHIWU SHENGLIXUE TONGXUN [PLANT PHYSIOLOGY COMMUNICATIONS] in Chinese No 6, Dec 80 pp 50-52

ABSTRACT: RuBP is a necessary reagent for studying photosynthetic carbon metabolism and is very costly. There are 2 methods of producing it, using R5P as the raw material. In the past the method of Morecker et al was mostly adopted. This method requires to prepare pure PRI and PRK in a completed procedure and a low production rate. The revised method of Bahr et al does not require purified PRI and PRK, and utilizes an extract of spinach chloroplast instead. This paper compares the advantages of both methods. In consideration of the special conditions of some Chinese laboratories, the authors also propose, some further simplifications in the processes of RuBP synthesis and purification. This paper was received for publication on 9 Feb 80.

AUTHOR: LI Lin [2621 3829]
JIAO Xinzhi [3542 2450 0037]

ORG: Both of Shanghai Institute of Plant Physiology, Chinese Academy of Sciences"

TITLE: "Method of Applying the Protein Staining Agent, Coomassie Brilliant Blue G-250 in Protein Determination"

SOURCE: Shanghai ZHIWU SHENGLIXUE TONGXUN [PLANT PHYSIOLOGY COMMUNICATIONS] in Chinese No 6, Dec 80 pp 52-55

ABSTRACT: In biochemical research, Folin reagent is commonly used to determine the protein content of enzymatic reagents. Due to the fact that plant materials often contain phenols or other substances capable of reacting with Folin, the protein value obtained from the test is often too high. Recently, Bradford, M.M. (ANAL. BIOL. CHEM. 1976, pp 248-254) introduced the method of color reaction produced by binding protein with Coomassie Brilliant Blue G-250. This new method is explained in the paper. Tests comparing the 2 methods on enzymatic extracts of plant materials involving Folin interference problems are carried out and reported.

This paper was received for publication on 28 Apr 80.

AUTHOR: TU Dasheng [1458 1129 2973]

ORG: Department of Biology, Xinxiang Teachers College

TITLE: "Comments on Several Problems in the First Volume of PLANT PHYSIOLOGY, a Textbook for Schools of Higher Education"

SOURCE: Shanghai ZHIWU SHENGLIXUE TONGXUN [PLANT PHYSIOLOGY COMMUNICATIONS] in Chinese No 6, Dec 80 pp 59-63

ABSTRACT: The first volume of PLANT PHYSIOLOGY, a textbook for schools of higher education published in Mar 79 represents a new accomplishment in the field. The author first offers various complimentary remarks with respect to various parts of the book's contents, and recommends its use as a textbook in teachers colleges. After a careful reading, the author is also compelled to point out several mistakes, however. Among the mistakes requiring correction mentioned there are an incorrect representation of the first law of thermodynamics, the percentage of free space volume in the total tissue volume, problems in biosynthesis of chlorophyll a, respiratory function and conversion of organic matter, etc.

This paper was received for publication on 12 Feb 80

6248

CSO: 4009

AUTHOR: YAO Maoran [1202 3185 3544]
ZHANG Fengying [1728 7364 5391]

ORG: Both of Dudanjiang Institute of Agricultural Sciences, Heilongjiang Provincial Academy of Agriculture

TITLE: "Preliminary Study on the Application of Fumigant to Control Northern Leaf Blight of Corn"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 6, 8 Dec 80 pp 4-6, 30

ABSTRACT: In Dudanjiang Region of Heilongjiang, the corn acreage amounts to 25-30 percent of the total grain-bean acreage. The gradual enlargement of corn acreage in recent years has increased the use of disease susceptible varieties, most of them hybrids, with a corresponding increase of severity of the leaf blight disease. Normally, it results in a yield reduction of 10-20 percent, above 50 percent or no yield at all in serious cases. The problem is aggravated by the tall stalks of corn to cause it difficult to apply drugs effectively. Beginning in 1978, an experiment of using germicidal fumigants has been carried out to test the effectiveness of various mixtures used as fumigants on the control of leaf blight spores. Various degrees of effectiveness are found with all the formulae. Yield of fields with one fumigation is all higher than those not fumigated.

AUTHOR: LIU Xingchun [0491 2502 2504]
PAN Zhiqing [3382 1807 1987]

ORG: Both of Changjiang Commune, Rugao County, Jiangsu Province

TITLE: "Development and Control of Wheat Aphids"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 6, 8 Dec 80 pp 7-9

ABSTRACT: Wheat aphids are a major pest of the fields along the bank of Yangzi in Rugao County and the damage is particularly severe on the late wheat crop. The study carried out by the authors discloses 2 species: *Rhopalosiphum padi* (Linnaeus) and *Macrosiphum avenae* (Fabricius). The relationship of the vertical distribution and quantity of aphids and the different ways of planting the wheat, that of incidence of aphids and the wheat species or varieties, and the effect of drugs in different densities are observed. The result of the study indicates that spraying a mixture of DDVP and soil onto the wheat tassels is the most effective technique for controlling the aphids.

AUTHOR: BO Mingjun [2672 2494 7486]
TU Leping [1458 2867 1627]

ORG: Both of Plant Protection Center, Yunnan Provincial Academy of Agriculture

TITLE: "Weeds of Wheat Fields and Chemical Control "

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 6, 8 Dec 80 pp 18-20

ABSTRACT: In Yunnan Province, the soil is moist when the wheat is first planted following the rice crop; therefore, weeds are extremely dense. They absorb a great deal of water and fertilizer, destroy the field environment, make incidences of disease and pests more severe, and affect the growth of wheat. Manual weeding is very labor extensive while the practice of dense planting makes it even more difficult to proceed. In 1974-1979, a study on chemical weeding technique was carried out in Kunming and Yuqi, followed by demonstration work. This paper outlines the procedure and the result of the experiment and the demonstration.

AUTHOR: PAN DaJun [3382 1129 6874]

ORG: Shenyang Academy of Chemical Engineering

TITLE: "Benthiocarb, a High Effect and Safe Herbicide for Rice Paddies"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 6, 8 Dec 80 p 31-

ABSTRACT: Benthiocarb is an excellent herbicide successfully produced in 1968 by a Japanese chemical company, mainly for prevention and elimination of weeds in paddies. It is more effective, safer, and less expensive than other common herbicides. It may be used in dry fields as well, and is now being developed as a major paddy herbicide, registered in more than 40 countries. Its advantages over other herbicides and the technique of using it are explained.

AUTHOR: None

ORG: Rice Blast Group, Taizhou District Center of Agricultural Sciences,
Zhejiang Province

TITLE: "BH-8 Type Electric Spore Catcher"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 6, 8 Dec 80 p 32

ABSTRACT: Using a spore catcher to capture spores of pathogens in the atmosphere periodically is a very effective technique for predicting the occurrence and development of diseases and pests. Since 1978, the authors used the BH-8 type electric automatic opening and closing spore catcher, produced by Toutu Electrical Appliance Plant of Huangyan County, Zhejiang Province in their forecasting work for blast of rice. The application of the past 2 years has demonstrated the reliability and sensitivity of this instrument. The structure of this instrument is described. An advertisement, with a photo depicting the instrument, appears with the paper.

6248

CSO: 4009

END

END OF

FICHE

DATE FILMED

March 18, 1981